## U.S.-México Border 2012 Waste Policy Forum Meeting February 7, 2006 - Public Meeting

Fiesta Inn Monterrey Centro Avenida Pino Suarez 1001 Monterrey, Nuevo Leon, México

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#### NOTE

This meeting summary is a record of the Waste Policy Forum Public Meeting which was held in Monterrey, México on February 7, 2006. A private meeting between forum participants was held on February 8<sup>th</sup> and is separately summarized. PowerPoint presentations made during the Waste Policy Forum can be found online at: <a href="http://www.epa.gov/border2012/wasteforum.htm">http://www.epa.gov/border2012/wasteforum.htm</a>.

#### BACKGROUND

The U.S.-México Border 2012 Program is the third iteration of the implementation of the bi-national Agreement on Cooperation for the Protection and Improvement of the Environment and Transboundary Problems, also known as the La Paz Agreement.

The ten year Border 2012 Program is organized into local task forces, state-to-state work groups, border-wide work groups, and media-specific, priority driven policy forums that provide technical assistance on broad policy issues. The Waste Policy Forum (WPF) is the umbrella borderwide advisory group made up of federal, state, local, and tribal government representatives that focuses on solid and hazardous waste policy issues. The Waste Policy Forum is made up of four regional task forces: Baja California-California, Sonora-Arizona, Chihuahua- Texas-New Mexico, and Tamaulipas- Nuevo Leon-Coahuila- Texas. The WPF is lead by the national environmental authorities of the United States and México, while the site-specific projects are directed by the regional task forces.

The waste offices of the U.S. Environmental Protection Agency (EPA), led by Matt Hale, and of the Mexican Secretaria de Medio Ambiente y Recursos Naturales (SEMARNAT), led by Ernesto Navarro, collaborated to put together a meeting where-by the Waste Task Forces explained and discussed steps taken and goals for the future. Public comment was taken on the issues relevant to them. This is the second meeting dedicated solely to the Waste Policy Forum.

#### **MEETING OBJECTIVES**

- Discuss four issues that have been identified as priorities in the Border 2012 Plan: institutional and infrastructure capacity building, transboundary hazardous waste tracking, scrap tires, and site revitalization.
- Highlight the work of the four regional task forces.
- Build working relationships among WPF members, partners, and participating stakeholders.
- Discuss the future work of the Waste Policy Forum.

#### ORGANIZATION & STRUCTURE OF MEETING

On February 7, 2006, the Waste Policy Forum held a public meeting in Monterrey, México. The public meeting was split into four sessions: Building institutional and infrastructure capacity, Tracking transboundary hazardous waste movements, Scrap tires, and Site revitalization. During each session, all four regional task forces highlighted their recent progresses and plans for the future. This was followed by discussion of the forum members. The public then had an opportunity to make comments or ask questions of the forum. Finally the WPF co-chairs, Matt Hale and Alfonso Flores (speaking for co-chair Ernesto Navarro) concluded with the next steps that should be carried out to advance the progress of that issue.

Waste Policy Forum members and partners were seated at the table (Border 2012 national and regional waste task force co-chairs, border office directors, and a few others designated by the co-chairs). The table was open at one end facing the audience which consisted of the public (academics, non-governmental organization (NGO) representatives, industry representatives, and general citizens) and non-forum local government officials. Several documents in Spanish and English were provided to the public by the waste offices of both countries.

### **OPENING REMARKS**

WPF coordinators Rick Picardi of the U.S Environmental Protection Agency's (EPA) Office of Solid Waste and Alfonso Flores of México's Secretaria de Medio Ambiente y Recursos Naturales (SEMARNAT) welcomed the attendees to the forum and discussed

the amount of progress that has happened over the past year, especially in the arena of cleaning up tire piles.

# WASTE OBJECTIVE 1: BUILDING INSTITUTIONAL AND INFRASTRUCTURE CAPACITY

## Coahuila-Nuevo Leon-Tamaulipas-Texas Task Force

Martin Bremer of the Instituto Tecnológico y de Estudios Superiores de Monterrey (ITESM) spoke of several new initiatives in his region. A municipal waste training took place in Nuevo Leon, which was very successful. The Universidad Autónoma de Nuevo Leon held a training session on the alternative use of waste tires. The University of Texas is considering the possibility of a waste tire workshop in the future. Mr. Bremer finished by stating that he is always looking for new opportunities for innovative cooperation on tire projects and site revitalizations.

#### Chihuahua-New Mexico-Texas Task Force

Jorge Castillo of the Texas Commission on Environmental Quality (TCEQ) spoke of several workshops that occurred in his region: a pollution prevention targeting the maquiladora industry in conjunction with New Mexico Environmental Department (NMED) and the Association of Maquiladoras of Cd. Juárez and a medical waste management workshop sponsored by the NGO called Hospitals for a Healthy Environment and TCEQ. This task force developed partnerships with the Federal Highway Administration's Border Technology Exchange Program to promote alternative pavements, coordinated with the Universidad Autónoma de Nuevo Leon (UANL) and the Rubber Pavements Association in organizing a waste tire end use workshop held in Monterrey in 2005 focusing on technical aspects of waste tire end uses. The task force created a Texas Mexico Border rubber modified asphalt workgroup to promote the use of crumb rubber for road paving projects. A visit was made to a crumb rubber plant in West Texas. Mr. Castillo commented that TCEQ has received numerous inquiries related to waste to energy, crumb rubber, and zinc recovery and so future workshops may be focused on these topics. The issue of used/salvage vehicles continues to be identified as a waste related issue. Greg Baker of the New Mexico Environment Department (NMED) told the forum of several successful classes NMED held for border officials on the U.S. side of the border and that he is interested in bringing versions of the classes in Spanish to the border region. The classes included subjects such as Landfill, Transfer Station, Recycling, and Compost Operator Certification Training. In addition a course on Solid Waste Management Enforcement training could be offered. EPA expressed interest in facilitating development of these classes.

#### Sonora-Arizona Task Force

Emily Pimentel of the EPA Region 9 reported on the proposed hazardous waste treatment and landfill facility that is undergoing SEMARNAT's permit application process. The proposed facility would be constructed in the Sonora border region, southeast of Yuma, Arizona. ADEQ and EPA requested that SEMARNAT provide additional information about this facility.

## Baja California-California Task Force

Ms. Pimentel also discussed the recent progress made in this region. New outreach efforts have been made for educating auto maintenance facilities in Tijuana on green business practices including proper management of used oil. The Campo Indian Reservation has recently received a solid waste landfill permit. Finally, Ms. Pimentel spoke of the need for future attention on solvents and electronics going into México. Lillian Conroe of the California Integrated Waste Management Board (CIWMB) announced that CIWMB is holding 3-hour training classes in Tijuana and Mexicali for Mexican tire haulers and tire dealers to understand the new CTL forms, hauler/manifest program and permit procedures. They are being held from February 7-8 and March 7-8.

#### **Next Steps**

Mr. Flores spoke of the need to focus on the proper management of solvents, municipal waste, and hospital waste. Future attention should also be spent on strengthening pollution prevention along the Mexican side of the border. An environmental consultant for Sonora spoke up, informing Mr. Flores on how difficult it has been getting the final land use permit for the proposed La Choya facility and other facilities. He asked that SEMARNAT streamline this process out and reduce fees. Mr. Flores agreed, saying sustainable forestry is an important issue. SEMARNAT will work on a strategy to address these problems.

Mr. Picardi emphasized that the forum should focus on the priority areas developed in the Binational Strategy. More effort will be needed on obtaining funding for projects on the priority areas because of potential diminishing current resources available to the forum. Ms. Pimentel agreed, saying that Region 9 will be reviewing project recommendations, so this is a good time to identify which priority areas should be focused on.

# WASTE OBJECTIVE 2: TRACKING TRANSBOUNDARY HAZARDOUS WASTE MOVEMENT

#### **SEMARNAT**

Mr. Flores discussed new additions to SEMARNAT's maquiladora waste electronic tracking system to reduce the difficulty of bureaucratic procedures for users. One issue is the limited length of time users have to store hazardous waste (15 days) when it sometimes takes longer than 15 days for authorities to give the user permission to transport the hazardous waste elsewhere. Hopefully new additions to the electronic tracking system will speed up the process of providing permission to transport hazardous waste. Another new addition to the tracking system is the creation of category catalogues. For example, the electronic system will not advance to the next page until the user successively picks a waste identification number and authorized company identification number. This certifies that hazardous waste is correctly tracked. Once all the appropriate categories have been selected, the user can add remarks, print the form and bring it to government officials. A pilot project for maquiladora owners to create their own notice of return will begin next month and run for two months.

## **Discussion & Public Comment Highlights**

- Several basic questions were asked about the operation of the system: Miguel Angel Torres of SEMARNAT-Tamaulipas asked whether the system will generate statistics. Fernando Páez of RIMSA asked whether this information would be available to the public. Mr. Bremer wanted to know if additional types of waste can be added to the catalogue. Mr. Flores replied that the system can generate statistics and that certain types of these statistics would be available to the public. He said that right now the types of waste for the catalogues being focused on are those in the "waste code dictionary" (a crosswalk of waste codes across the North American countries) being developed between the three North American countries.
- Ed Ranger of the Arizona Department of Environmental Quality (AZDEQ) asked whether the system is limited to the maquiladora industry or if it can also be used for other industries. Mr. Flores replied that the system is currently only for use in the maquiladora industry and for the illegal importation of items that damage the ozone layer.
- Hector Sanchez of SEMARNAT posed a hypothetical situation of one maquiladora transferring waste to another company. He wanted to know how SEMARNAT could ensure that the second company followed the commitment of the original maquiladora to return the waste to the country of origin. Mr. Flores replied that Article 28 required maquiladoras to address this transfer issue under their management plan.

#### U.S. EPA

Mr. Picardi gave a presentation on an electronic system that the EPA has proposed. The proposed system will enhance the current paper-based transportation manifest system by containing all the information of the paper manifest, but allowing waste handlers to prepare the form electronically and submit it to government officials over the internet. This would provide an estimated annual savings of \$100 million to users and the government and would reduce the bureaucratic burden upon the users of all the paper manifests they generate. The system would also provide improved inspection and enforcement capabilities for the government. The EPA hopes to issue a regulation authorizing the use of the e-manifest in 2007.

Mr. Picardi also spoke of a pilot project to use radio frequency identification (RFID) on hazardous waste shipments to improve tracking and reduce idling time of haulers at the border. RFID can give near real-time information on the status and location of hazardous waste shipments at various points along their route.

#### **Discussion & Public Comment Highlights**

• Mr. Castillo asked whether there is coordination with the U.S. Customs and Border Protection Agency on the RFID project. Mr. Picardi replied that Bonnie Romo of EPA Region 6 has been investigating how RFID would be implemented and how much involvement of customs would be needed.

- Mr. Ranger commented that more consistency in inspection and enforcement protocols is needed among the different customs ports along the border area. Mr. Picardi agreed, but stated that the ports are largely autonomous.
- Mauro Corral of SEMARNAT asked whether the e-manifest system could be linked up with SEMARNAT's database Sistema de Rastreo de Residuos Peligrosos (SIRREP). Mr. Picardi answered that at this time, the focus of development efforts are on domestic hazardous waste traffic, but the EPA is open to exchanging data with other systems if that is found to be feasible.
- John Rothman of EPA Region 9 was curious if the RFID program would close the loop on the tracking of shipments that México considers hazardous waste, but that the U.S. does not. Mr. Picardi replied that it would not close this loop unless the RFID is sent to a national tracking system which is currently difficult and expensive.

#### PRESENTATION ON LA CHOYA

Mr. Flores presented information on the status of the La Choya facility, a future hazardous waste treatment facility located 40 km (25 miles) south of the border in Sonora. The facility will be able to separate and treat up to 45,000 tons of hazardous waste per year. Some wastes that the facility will be able to accept include organochlorides, asbestos, and waste sludges from industrial processes. The application for the facility is nearly complete except for a land permit which is under review.

## **WASTE OBJECTIVE 3: SCRAP TIRES**

#### Baja California-California Task Force

Ms. Pimentel spoke of the successful clean-up efforts that have taken place in this region. 100% of 1.2 million tires at Centinela is expected to be completed at the end of this year; 100% of 420,000 tires at Innor have been cleaned up; and 40,000 tires at a site in Tijuana have been cleaned up. David Jones of EPA Region 9 said that they have estimated 20 scrap tires to be equal to one barrel of oil (which is currently worth about \$60). Due to the abundance of scrap tires, cement kilns currently receive tires for free. Mr. Jones thinks that in the future when scrap tires are less readily available, market forces will drive kilns to pay to receive scrap tires.

Carlos Rincon of EPA Region 6 said he was aware that California has a tire fee and wondered if that fee could support the clean-up of tire piles. Ms. Conroe explained that this money goes to training workshops held along the border to teach haulers how to properly export tires over the border.

#### Sonora-Arizona Task Force

Ms. Pimentel also spoke of the tire pile clean-up efforts made in the Sonora area. 80,000 tires have been cleaned up from Aqua Prieta. Other tire piles that will be focused on in the future include Nogales (200,000 tires) and San Luis (250,000 tires).

## Coahuila-Nuevo Leon-Tamaulipas-Texas Task Force

Hector Chavez of the Eagle Pass, TX city government spoke about future goals for the 4-state region. One goal is the reinstatement of the \$2 tire disposal fee in Texas to help small cities deal with scrap tire management. However, Mr. Castillo said it was unlikely Texas would be reinstating the tire disposal fee in the immediate future. Jose Ignacio Legarreta of SEMARNAT commented that México should also create a \$2 tax on tires or something similar to help manage scrap tires. Mr. Chavez said another goal is to increase the amount of tires used to create crumb rubber (currently 10%).

Gina Weber of EPA Region 6 also spoke for the 4-state region. She said EPA Region 6 is looking into the feasibility of using crumb rubber in the Lower Grande region and is working with the Department of Transportation (DOT) to implement further use of tire crumb rubber for road pavings. Ms. Weber spoke of new initiatives with the Department of Health to examine the health side of tires piles and prevent the spread of Dengue Fever, West Nile Virus and other infectious diseases associated with tire piles.

#### Chihuahua-New Mexico-Texas Task Force

Mr. Castillo explained the progress made over the last year in the 3 states region. 20% of 4-5 million tires (800,000) have been cleaned up at Ciudad Juárez Juárez through proactive role of GCC Cementos in co-processing. The tire pile at Nuevo Laredo no longer exists because it unfortunately caught on fire in July 2005. In addition to work on cleaning up the three largest tire piles, Mr. Castillo spoke of potential future clean-up efforts to clean up smaller piles, such as in Matamoros, Reynosa, and Piedras Negras. Finally, Mr. Castillo said the use of scrap tires in rubber modified pavements should be further explored.

#### **SEMARNAT**

Adriana Oropeza of SEMARNAT presented an overview of the progress of the many tire pile clean-ups in México. SEMARNAT has coordinated with local governments and the EPA to establish procedures for the proper management of waste tires. Throughout 2004-2005, 1.3 million waste tires have been removed: Around 850,000 scrap tires in Baja California and 550,000 scrap tires in Juárez City. In Ciudad Juarez, SEMARNAT signed an agreement with CANACEM (the Mexican cement manufacturers association) and Chihuahua Cement to use some of the waste tires for co-processing (tire-derived fuel) in their cement kilns. The co-processing of scrap tires has risen from 70,600 thousand tires in 1993 to 1,030,000 tires in 2005. Other initiatives have been road paving in San Pedro, Heron Garcia, Nuevo Leon and Tijuana.

The monetary resources for the tire management projects were:

• SEMARNAT: \$ 3,110,00 MX

• The government of Baja California: \$ 2,000,000 MX

• The government of Chihuahua: \$ 400,000 MX

• By the Municipality of Cd. Juárez: \$ 400,000 MX

• By the U.S. EPA: \$ 225,000 USD

#### **Discussion & Public Comment Highlights**

- A member of the public asked Ms. Oropeza to comment on a Greenpeace letter sent to former President Fox demanding he stop the burning of tires in México due to the pollution created from tire burning. Ms. Oropeza explained that the statistics on toxic release from tires used by Greenpeace were based on uncontrolled open-air tire pile burnings. This is different from what SEMARNAT supports: the controlled use of tires as fuel in cement kilns. This process is now being called co-processing in México (tire-derived fuel in the U.S.) and should not be referred as scrap tire burning to avoid the confusion doing so creates.
- Mr. Bremer advised that the specific costs per tire of co-processing in a business setting should be calculated to give to potential investors. Investors could use this information to create market forces to further drive tire co-processing.
- Ms. Pimentel broke down the use of scrap tire use in the U.S.: 45% used as tirederived fuel (i.e. co-processing), 19% used for civil engineering projects, and 2% used as crumb rubber for road paving.

#### U.S. EPA

Mr. Picardi presented information on a tire pile inventory of the border area the EPA is undertaking. At last year's Waste Policy Forum in Tijuana, many forum members spoke of the need to create an inventory of all the scrap tire piles along the border. In response, the EPA hired a consultant to collect information on the location and size of tire piles in the U.S-México border region and then map this data using GIS technology. Ideally, other information such as how the tires are stored, access to the site, the owner of the site, and whether the tire pile is a legal or illegal site will also be collected. He presented a map of the data collected thus far and asked forum members to contact the EPA consultant with any additional information they had on tire pile sites. (Jack Brunner, Tetratech EM Inc., jack.brunner@ttemi.com, (312)-201-7788)

Abigail Ryder next announced a recent Pan-American Health Organization (PAHO) Request for Proposals for pilot projects on public health and environmental indicators, including those related to waste tires. PAHO will select 3-5 projects ranging in between \$50,000 and \$150,000. The initial project proposals are due to PAHO by March 3<sup>rd</sup>. All are encouraged to apply.

## **Discussion & Public Comment Highlights**

- Mr. Castillo mentioned that satellite images from Google Earth could be used to provide GPS coordinates for the location of tire piles.
- Ms. Weber said that the EPA consultant should speak to the University of Texas-Austin grantee who is working on a similar project to avoid duplication of efforts.

## Camara Nacional Del Cemento (CANACEM) Presentation on Waste Tire Co-Processing (Tire Derived Fuel)

Luis Carranza of CANACEM presented to the forum how scrap tires are co-processed in a cement kiln. México has six cement-making companies with kilns in 30

locations throughout the country. Co-processing is using the energy content of tires as fuel to fire a kiln. It is sometimes confused with tire burning, but co-processing is very different because of the pollution controls used in cement kilns. The kilns operate at temperatures of 2000°C (3600°F) and ensure that all gases released are captured, recycled, and re-used. Tires are loaded into kilns in closed conveyors, dropped into bins with lids, the lids close, and the tire is heated.

Tire co-processing began in 1990. SEMARNAT and CANCEM signed an agreement in 1996 to work together to promote co-processing. SEMARNAT monitors the kiln emissions, storage, etc. under Mexican law NOM-040. In 2005 more than two million tires were processed. However, only 2% of fuel for cement kilns in México comes from tire processing. (This compares with 8% in the U.S., 12% in the European Union up to a high of 83% in Holland). Mr. Carranza said the cost of using coal versus tires in kilns is comparable, with tires being slightly more expensive.

Tires are not the only material that can be co-processed. Any waste with an energy value, such as textiles, paint, or resins can also be used to fire kilns. Wastes such as automobile batteries, radioactive wastes, and acids are forbidden from being co-processed by law.

## **Next Steps**

Mr. Hale said that the focus of future scrap tire efforts should be finishing the scrap tire strategy, finishing the tire pile inventory, and continuing the clean-up momentum.

Mr. Flores would like to continue cleaning-up tire pile sites, and also would like to further explore other cost-effective solutions to deal with tires. Ms. Oropeza said that cleaning-up the sites is not just a question of technology or monetary funds, but also in forming partnerships with institutions and the private sector.

#### WASTE OBJECTIVE 4: SITE REVITALIZATION AND CLEAN-UP

#### **SEMARNAT**

Mr. Flores told the forum that the past year has been focused on strengthening regulatory and technical standards rather than working on a specific site. Procedures for site characterization, remediations, and the liberation of sites have been worked out. Mr. SEMARNAT explained that site cleanup procedures are different in México than in the U.S. because ownership of the site must be determined before characterization can begin (as initially happens in the U.S.). SEMARNAT can only begin work on a site once the site has been determined to be abandoned.

#### Baja California Task Force

Ms. Pimentel spoke about the progress of the Metales y Derivados site in Tijuana. Metales was a lead smelter and battery recycling facility that the Procuraduría Federal de Protección al Ambiente (PROFEPA) ordered closed in 1994. The Commission on Environmental Cooperation (CEC) was petitioned to complete a Factual Record in

2000 due to the hazards the site posed to the surrounding population. In 2004, Mexico established a four phase remedial plan and created a technical work group which included EPA. Clean-up was initiated in 2004. As part of Phase 1, the US and Mexico conducted a stabilization to remove hazardous waste posing the highest risk. Thus far, 2000 tons of hazardous waste has been removed. There is a future land use proposal that is compatible with the industrial zoning of this area. Future challenges include removing additional surface waste and left-over building materials.

Documents to meet requirements of the remedial plan are being prepared for Metales; the challenge is that regulation and guidance are being developed at the same time. EPA has been working with México on a human health risk assessment and further field characterization to support development of remedial alternatives. EPA participated in a SEMARNAT lead workshop held in México City that was held to develop national risk assessment guidance. Mexican law appears to require some sort of treatment for a contaminated site. Stabilization and excavation are being considered, but it is unclear whether capping, a cost-effective solution, can also be considered. These are issues that will require further work with the Metales technical work group.

#### Sonora-Arizona Task Force

Ms. Pimentel discussed the public health and environmental concerns associated with mine tailings from the Montezuma Mine in Nacozari area of Sonora. She commented that SEMARNAT had requested technical assistance for this issue, which EPA is providing some to conduct an assessment in 2006. Ms. Pimentel also spoke of the U.S.-México Binational Center at the University of Arizona. The Center will be working with ten universities in Mexico. The Center's purpose is to provide training, research, outreach, and educational materials to address public health issues and to develop remedial practices related to mining activities and to facilitate stakeholders.

## Chihuahua-New Mexico-Texas Task Force and Coahuila-Nuevo Leon-Tamaulipas-Texas Task Forces

Ms. Weber hoped to provide the names of two contaminated sites in Reynosa and Matamoros, but the owners of the contaminated sites have recently been found. Instead of beginning clean-up, enforcement actions are now being undertaken to compel the owners of the sites to pay for remediation.

#### **Discussion & Public Comment Highlights**

• A member of the public posed a question to SEMARNAT on how to make owners comply with laws to prevent site contamination. He noted that sometimes fines for non-compliance are so low that it is more cost-effective for owners to pay fines than to follow waste regulations. Mr. Alfonso replied that a new law that will be published in May 2006 states owners are responsible for the costs of the complete remediation and not only for a fee.

#### **Next Steps**

Mr. Flores said SEMARNAT hopes to begin action on the Montezuma Mine in the next year and to work on legal guidelines to determine official limits of hazardous waste on contaminated sites. Mr. Hale said a priority is to pick the remaining two sites to fulfill the Border 2012 commitment.

#### ATTENDEES (85)

Fernando Ramírez Vega Agencia de Proteccion al Medio Ambiente y

**Recursos Naturales** 

X. Murrieta APPISA
Ed Ranger Arizona DEQ
Daniel Chacon BECC/COCEF
Veronica Sundoval BIZNEWS

Francisco Martha Camara Nacional de la Industrial Huizra

Jorge Luis Martinez Cementos Moctezuma
Julian Echavarri Hoez Cementos Moctezuma
Rodolfo Anguiano R. Cementos Moctezuma

Francisco Calderon CEMEX Luis Mejia CEMEX

Erendira Corral Zauala CESPEDES-CCE
Hector Chavez City of Eagle Pass
Luz Elena Charles Merlo Comite de Reciclaje NL

Made Jesus Mde Morguedo Comite Ecologico Pro Bienes Toy

Juan Meneses Copamex

E. Javier Gzz R. Direccion de Recomonia

Alejandro Ameneyro Ecoltec
José Alfredo Nuñez FIC-UANZ
Gustavo A. Nuñez GCC Cemento

Adrian Quintendlo Gintro
David Clingan Gintro

D. A. Acosta Groupo Douios Gilardo Montenegro Grupo México Carlos Mora Vanegas Hidro Industrial

Carlos Juárez Holeim Apasco/ Ecolta

Aldo González **ITESM** Ana Chew **ITESM** Delia Gutiérrez E. ITESM Elsa Cauhe **ITESM** Floriana Hdez Ahz **ITESM** Gonzelo Hernañdoz **ITESM** Harim Morens Melo ITESM Lucila L. Vázquez Cantó **ITESM** Maheli Guitrón Pérez **ITESM** Martin Bremer **ITESM** Miguel Bautista **ITESM** Natalia Lopez Hernandez **ITESM**  Ricoldo Roldón ITESM Yadira Ruiz Gonzalez ITESM

Rodrigo Costellon ITESM (EGADE) Francisco Garzomtz ITSM (EGADE) Alberto Robles Lafurge Cementos

Armulto Dominguez Granados
Jose Luis Mttr. L.
Municipio de Guadalupe
Municipio de Guadalupe
Municipio de Juárez
Laurencio Lerma R.
Municipio Reynosa
Municipio Reynosa

Greg Baker New Mexico Environment Dept.

Julian de la Garja C. PEMEX

Gildardo Muñoz Giez PEMEX Explozacion y Produccion

Ricardo Boasrao Pirelli Luis F. Chapa **RIC-UANL** Fernando Páez **RIMSA** Miguel Angel Leal **SEMARNAC** Adriana Oropeza **SEMARNAT** Alfonso Flores Naminez **SEMARNAT** Hector M. Sánchez Lopez **SEMARNAT** Jose Ignacio Legarreta **SEMARNAT** Jose Luis Garza **SEMARNAT** Mauro Corral **SEMARNAT** 

Oscar Aragòn SEMARNAT
Israel Camacho SEMARNAT- BC
Jose Luis Tamez SEMARNAT - NL
Norma Rangel Seulla SEMARNAT- NL

Horacio del Angel SEMARNAT- Tamaulipas Miguel Angel Torres SEMARNAT- Tamaulipas Ramon A. Sampayo Ortiz SEMARNAT - Tamaulipas

Emilio Cedrún SEMARNAT-UCAI

Ramòn Castrejon SIEU Sonora Rubén Rodriguez Castro SOPDUE

Lillian Conroe State of Calif- CIWMB

Jorge Castillo **TCEQ** Norma Rota UA de C Abigail Ryder **USEPA** Matt Hale **USEPA** Rick Picardi **USEPA** Norma Duran USEPA R6 Gina Weber USEPA R6 Carlos A. Rincon USEPA R6 **David Jones USEPA R9 Emily Pimentel** USEPA R9 John Rothman USEPA R9 Liz Vargas Martinez Vitro

Roman Villaneuva Guillermo Sepien Zinc Nacional S.A. ZNSG